

**Dive Plan 4207 - 1 July 2006****Port:** T. Shank**Starboard:** A. Zafereo (PIT)**Pilot:** B. Strickrott**On Bottom Target:** x = 4640      y = 77586      9°50.09176N      104°17.46722W

**Objectives:** Land to the east of BM82/Mkr8; load ARCO traps on pump elevator and release it; position INSECT elevator; sample, deploy resprobe, markers; transit south to BM 141/2 sample, etc.; continue transit south down to TWP, sample and characterize; transit down to Tevnia Hole noting diffuse flow.

1. Turn on ECHEM at 200m, leave on as descend to bottom, positioned in its holster.
2. Turn on magnetometer at 1000m and do a 3 min spin clockwise and then counterclockwise, note time of spin.
3. Land on bottom ~35m west of the area formerly known as Prince (I mean BM82) now Mkr8
  - transit east to Mkr 8.
4. **At BM82/Mkr 8:      x = 4676      y=77586      Hdg=310      d=2504m**
  - recover two Arco caps and place in bioboxes on elevator
  - stow snorkel and release pump with pull-pin
  - get INSECT elevator      x=      y=
  - position INSECT in flow
  - ECHEM as required
  - recover Hobo from Io (new style # 8)
  - sample 2<sup>nd</sup> black smoker **\*NOT\*** sampled on 4206
  - **(4206 sampled:      x=4677 y=77601      Hdg=352      d=2504m      T=371°C)**
  - 1 major pair
  - 2 gas tight
  - deploy resprobe
  - deploy Hobo if appropriate
  - sample basalt with early colonizers and place in grey biobox/RNA chamber.

***In Nov. 2004 Ty vent was 310°C and Io was 355°C.***

5. Transit south through **BM141/2 area:**      x = 4746 (-50-60m?)      y = 77144 (-20-40m?)
  - if there are now smokers here measure their temperature and sample
  - if there is intense diffuse flow here now measure its temperature and sample
  - 1 major pair
  - 1 gas tight
  - sample basalt with early colonizers and place in grey biobox RNA chamber
  - ECHEM with this sample.
6. Transit south to TWP.
7. **At TWP:**      x = 4845 (-50-60?)      y = 76693 (-20-40?)
  - see if it has re-activated
  - measure temperature
  - collect orifice
  - collect remaining bottles
  - deploy Hobo if one remains
  - deploy marker.
8. Continue to transit south within the ASCT to Tevnia Hole.

***BE SURE TO IMAGE AND DOCUMENT EVERYTHING, and TO DEPLOY MARKERS AT ALL SAMPLING SITES.***

Basket load:

- 2 marker launchers with 8 markers
- downlooking camera
- ECHEM probe and can
- Alvin hi T probe
- Alvin lo T probe
- slurp-filter
- 2 grey bioboxes/RNA chambers
- 1 clear square biobox
- 2 scoops
- 1 resprobe with ICL can
- 4 majors pairs
- 5 gas tights
- 8 TAMS
- 2 rounds
- 3 sandwiches
- 2 hobos

**ECHEM laptop and power cord/charger in ball.**

Origin is 9°08'N and 104°20'W.